June 9, 1936. G. K. J. BROBERG ET AL 2,043,854

CAMP BEDSTEAD

Filed July 24, 1934 2 Sheets-Sheet 1

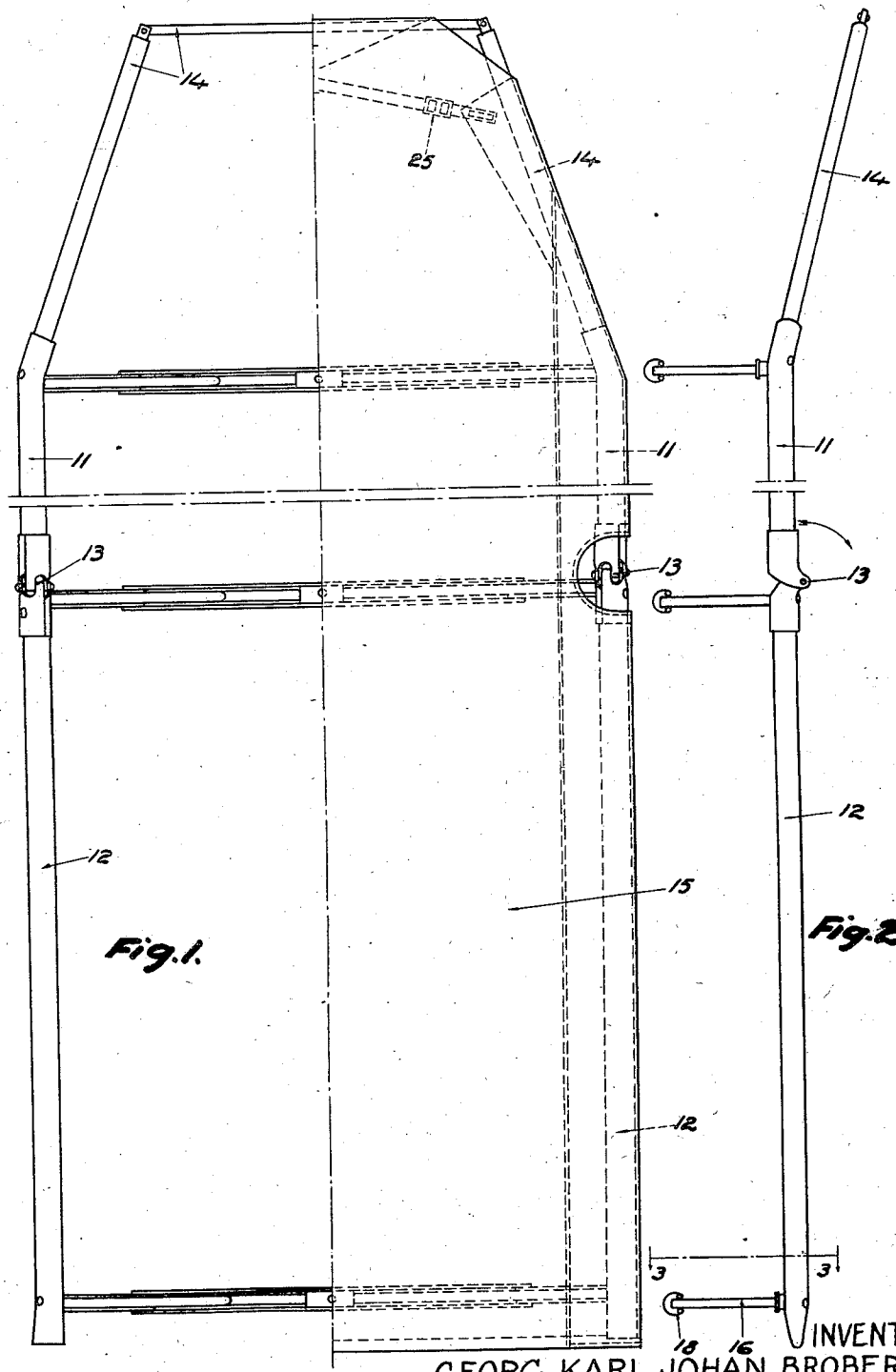

Fig. 1.

Fig. 2.

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Fig. 3.

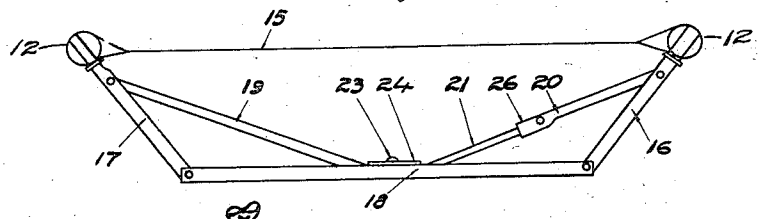
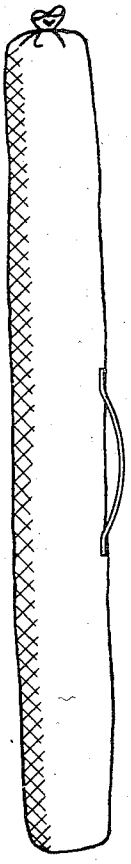


Fig. 4.



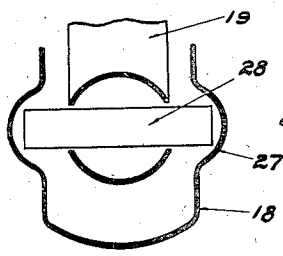


Fig. 6.

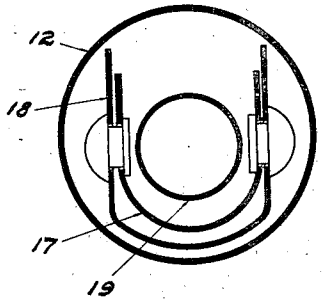
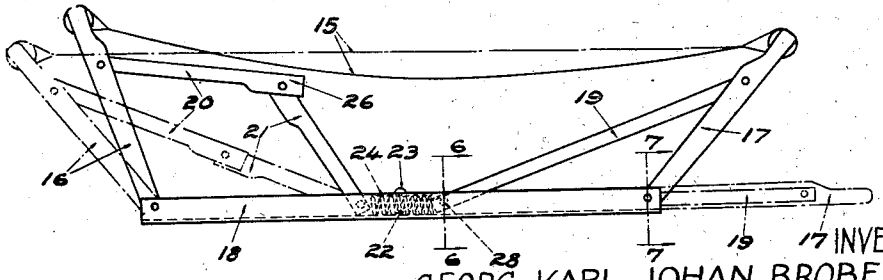


Fig. 7.

Fig. 5.



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2,043,854

CAMP BEDSTEAD

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8 Claims. (Cl. 5—114)

The camp bedsteads hitherto sold on the market have many drawbacks. So for instance they have a relatively high weight and require much space after folding, and therefore they are very difficult to bring along.

The present invention relates to a folding bedstead, which may be taken to pieces and which is so constructed that the above mentioned drawbacks are overcome. Furthermore the weight of the bedstead is as little as possible and the space required by the bedstead when folded is very inconsiderable.

The bedstead according to the invention comprises two side frame pieces having tubular or U-shaped cross section and extending in the longitudinal direction of the bedstead. Each of the said frame pieces consists of one or more parts and between the said frame pieces is disposed the bottom of the bedstead and two or more stirrup- or U-shaped cross pieces detachably connecting the side frame pieces, there being legs upon said cross pieces forming the legs of the bedstead while the free end portions of the said cross pieces are shaped as pins extending into holes provided in the side frame pieces, the portion connecting the legs being adapted to constitute support against the ground. The especially new and characterizing feature of the invention consists in that the legs of each cross piece are pivotally secured in the portion connecting the same and swingable about horizontal axes in the plane of the cross piece and that the legs and the connecting portion are arranged in such manner that after the bedstead has been taken to pieces all of the cross pieces or most of them may be put into the side frame pieces or into the parts forming the same.

The accompanying drawings illustrate an embodiment of a bedstead made according to the invention.

Figure 1 shows a plan view of the bedstead, the bottom of the bedstead being removed in part,

Figure 2 is a lateral view of the same,

Figure 3 shows a fragmentary section taken on line 3—3 of a part of Figure 2,

Figure 4 showing the bedstead when put together in a bag,

Figure 5 shows a cross piece,

Figure 6 is a section taken on line 6—6 of Figure 5, and

Figure 7 is a section taken on line 7—7 of Figure 5.

The two last mentioned figures are drawn to a larger scale than Figure 5.

Each of the side frame pieces of the bedstead consists of two tubes 11 and 12, which are connected with each other by means of the hinge-shaped joint 13. The side frame pieces are connected with each other by means of three stirrup-shaped or concave-sectioned cross pieces 16, 17, 18, the free end portions of which are inserted in holes, which have been provided in the tubes 11 and 12. The free end portions of the tubes 11 are bent somewhat inwards and upwards and a support 14 for the head is arranged in the said end portions. The body rest or supporting bottom 15 of the bedstead consists of a cloth, and the longitudinal sides of the same are provided with tubular hems, in which are inserted the side frame pieces and the portions of the support for the head, which are connected with the tubes 11.

In the cross piece, which is shown more particularly in Figure 5, the portion 18 connecting the legs 16, 17 has U-shaped cross section. The legs, which also have U-shaped cross section, are each pivotally secured to its end portion of the portion 18 and are pivotally disposed in the symmetry plane of the cross piece. A brace 19 which consists preferably of a tube, has one end pivotally connected to the leg 17 at a distance from the free end of the latter. The other end is slidable in the portion 18. In a corresponding way a brace is provided at the leg 16. This brace, however, consists of two parts 20 and 21 pivotally connected with each other, and the free end of the part 21 is slidable in the member 18. A spiral spring 22 is disposed in the middle of the member 18, against which spring the braces rest, when the legs of the cross piece are connected with the side frame pieces and when the cloth or fabric forming the body rest or bottom of the bedstead has been strained. As mentioned the legs 16 and 17 have U-shaped cross sections, in order that the braces, which are narrower than the distance between the flanges of the legs, may be folded into the same, the two legs in disassembled condition of the bedstead folding down into alignment with the cross piece member and extending from the ends thereof. The spring 22 is secured to the member 18 by means of a rivet 23, which is disposed in a plate 24 soldered on to the member 18.

On setting up the bedstead the side frame pieces are introduced into the tubular hems of the bottom 15 of the bedstead. After that the legs of the support for the head are inserted in the fore ends of the tubular hems and in the fore parts of the tubes 11, after which the bottom of the bedstead is strained around the member connecting the legs of the support for the head by means of the straining device 25. The end portions of the cross piece legs 16, 17, the said end portions be-

ing formed as pins, are then introduced into the holes of the tubes 11, 12, the cloth 15, after the cross pieces have been applied assuming the position indicated in full lines in Figure 5. By the brace, which consists of the parts 20 and 21, being pressed down to the position indicated by dash and dot lines, the cloth is strained and assumes the position indicated by dash and dot lines. The free ends of the braces then rest against the spring 22, which results in the cross piece becoming very steady. The end portion 26 of the part 20, which forms the joint together with the part 21, is U-shaped and extends past the said joint and will thus serve as a stop against the part 21 in the pressed down position so as to prevent the brace from being pressed down too much. The spiral spring serves to prevent the cloth from bursting when subjected to hard stresses, the braces pressing the spring together a little on such occasions.

On taking the bedstead apart the fore portion of the bedstead, which is formed by the support for the head and the tubes 11, is swung upwards in the direction of the arrow in Figure 2 and is put upon the rear portion. The braces 20, 21 are moved back to the position shown in full lines (Fig. 5), and the cross pieces and the support for the head are removed. The legs 20 and 21 are swung down in line with the member 18, which connects the legs, and the braces are folded into the legs and the member 18 to the position which is indicated in dash and dot lines in Figure 5. Thereafter each cross piece is pushed into any of the tubes 11 and 12, the latter thus forming hollow, elongated cross piece storage members which could be any other practical form rendering them capable of receiving the cross pieces in collapsed condition of the bedstead. The support for the head also is inserted in a similar way. The folded side frame pieces are then rolled towards each other and a very small package is obtained, which may be inserted in a covering in the shape of a bag. The bedstead when put in a bag is illustrated in Figure 4.

By the side frame pieces being provided with the joint 13 it is possible to fold the bedstead without removing the bottom 15 of the bedstead from the side frame pieces.

The flanges of the member 18 are preferably provided with longitudinal grooves 27 in which the ends of a pin 28, which is provided in each of the free end portions of the braces, are guided, whereby the braces cannot leave the groove in the member 18 (see Fig. 6). A similar guiding is also obtained, if the free flanges of the connecting member 18 are provided with inwardly and downwardly bent edges.

Figure 7 shows a section taken on line 7—7 of Figure 5, the leg 19, however, imagined to be swung down to the position which is indicated by dash and dot lines to the right in Figure 5. Further the cross piece is imagined to be disposed in one of the tubes forming the side frame pieces, for example the tube 12.

The spiral spring 22 may also be replaced by another member serving as a stop, especially in bedsteads that are not meant to be subjected to too hard stresses. Furthermore it is not necessary to provide the tubes 11 and 12 with the joints 13, but they may be connected by means of sleeves.

Having now described our invention, what we claim as new and desire to secure by Letters Patent is:

1. A portable and foldable bedstead comprising, in combination, opposite, spaced and elongated cross piece storage members extending in the longitudinal direction of the bedstead when set up, there being a body rest in the form of a supporting bottom disposed between and supported upon said elongated storage members, at least two spaced, concave-sectioned cross pieces adapted to lie horizontally upon the ground and support the bedstead as a whole and which cross pieces at their ends have legs extending upwardly so as to form the legs of the bedstead and terminating at their upper ends in the form of reduced portions extending detachably into apertures in said storage members and also pivotally connected at their lower ends to the cross pieces so as to be swingable downwardly and outwardly into approximate alignment with said cross pieces when the bedstead is disassembled in order to render each cross piece, together with the legs thereof, capable of being introduced into one of said elongated storage members.

2. A portable and foldable bedstead comprising in combination, a pair of opposite and spaced, hollow, elongated members extending in the longitudinal direction of the bedstead when set up, there being a body rest in the form of a supporting bottom disposed between and supported upon said elongated members, a plurality of spaced, channeled cross piece members adapted to lie horizontally upon the ground and support the bedstead as a whole, which cross pieces have channeled legs extending upwardly so as to form the legs of the bedstead and terminating at their upper ends in the form of reduced portions extending detachably into apertures in said storage members and also pivotally connected at their lower ends to the cross pieces so as to be swingable downwardly and outwardly into approximate alignment with said cross pieces when the bedstead is disassembled in order to render each cross piece, together with the legs thereof, capable of being introduced into one of said elongated storage members, and a brace pivotally connected at one end to each leg and having the other end movable in the channeled cross piece to which the respective leg is connected, which brace is foldable with the leg into alignment with said cross piece.

3. A portable and foldable bedstead according to claim 2, wherein a stop is disposed in an intermediate position in each of the channeled cross piece members and serves as a support for the movable end of each brace associated with the legs connected to each respective cross piece member when the bedstead is assembled and set up for use.

4. A portable and foldable bedstead according to claim 2, wherein one brace of the two associated with the legs connected to each cross piece member comprises two pivotally joined parts, which, while being set up and unfolded into substantial alignment, move the respective leg to which said one brace is connected in an outward direction so as to tighten the body support or supporting bottom in a transverse direction.

5. A portable and foldable bedstead according to claim 2, wherein the movable end of each brace associated with the legs of each cross piece member is provided with lateral extensions and the cross piece member involved is formed with side grooves in the lateral walls thereof, serving as guides for the lateral projections upon the ends of said braces in which said projections are slidable.

6. A portable and foldable bedstead according

to claim 2, wherein a resilient stop in the form of a spring is disposed in an intermediate position in each of the channeled cross piece members and serves as a resilient support for the movable end of each brace associated with the legs connected to each respective cross piece member when the bedstead is assembled and set up for use.

7. A portable and foldable bedstead according to claim 2, wherein the movable end of each brace associated with the legs of the bedstead is provided with a pin extending transversely therethrough, and each cross-piece member is provided with side channel portions serving to guide said pin during movement of the brace involved while setting up and disassembling the bedstead.

8. A portable and foldable bedstead according to claim 2, wherein each of the hollow, elongated members comprise two parts pivotally interconnected so as to allow said members to be folded together or folded out for use.

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